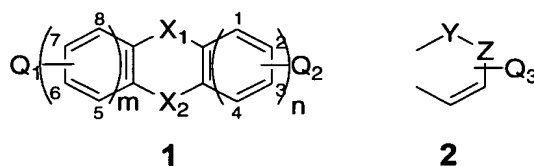


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An infrared dye wherein the dye comprises of a molecule 1



wherein m and n are the number of fused 6-membered aromatic rings connected to each side of the central moiety such that the first 6-membered aromatic ring, if present, is connected as shown in 1; and

wherein Q₁ and Q₂ are one of the same or different fused rings shown as 2 whereby one ring shown as 2 is connected at any of the two adjoining positions C₁ to C₄ at any orientation and another ring shown as 2 is connected to any of the two adjoining positions C₅ to C₈ at any orientation of the outer aromatic rings shown in 1 which may also include one or many substituents individually selected from the group consisting of R₁, a fused 5-membered ring or a 6-membered aromatic ring optionally substituted with 1 to 4 substituents individually selected from R₂, and fused polyaromatic rings optionally substituted with one or more substituents selected from R₃ wherein R₁, R₂ and R₃ are individually selected from the group R; and

wherein X₁ and X₂ are individually selected from the group consisting of CO, and O, S, Se, Te, CR₄R₅, NR₄, SiR₄R₅, GeR₄R₅, PR₄ where R₄ and R₅, which may be the same or different, are selected from the group R; and

wherein Y is individually selected from the group consisting of CO and O, S, Se, Te, CR₆R₇, NR₆, SiR₆R₇, GeR₆R₇, PR₆ and Z is selected from CR₈ or N where R₆, R₇ and R₈ which may be the same or different, are selected from the group R; and

wherein Z is individually selected from the group consisting of CO and O, S, Se, Te, CR₉R₁₀, NR₉, SiR₉R₁₀, GeR₉R₁₀, PR₉ and Y is selected from CR₁₁ or N where R₉, R₁₀ and R₁₁ which may be the same or different, are selected from the group R; and

Q₃ and Q₄ may be 0, 1 or more than 1 substituents that are individually selected from the group consisting of R₁₂, a fused 5-membered ring or a 6-membered aromatic ring optionally substituted with 1 to 4 substituents individually selected from R₁₃, and fused polyaromatic rings optionally substituted with one or more substituents selected from R₁₄ wherein R₁₂, R₁₃ and R₁₄ are individually selected from the group R; and

R is the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aralkyl group, a halide atom, a hydroxy group, a substituted or unsubstituted amine group, a substituted or unsubstituted alkoxy group;

wherein the infrared dye absorbs strongly in the near infrared region of the spectrum but poorly in the visible region of the spectrum.

2. (Original) An infrared dye composition comprising a compound that can be described by molecule 1 according to claim 1.
3. (Original) A solvent-based ink composition comprising a compound that can be described by molecule 1 according to claim 1.
4. (Original) An infrared absorbing compound according to claim 1 wherein one or more polar group substituents such as $-\text{SO}_3\text{H}$, $-\text{NH}_2$ and $-\text{CN}$ are utilized.
5. (Original) A solvent-based ink according to claim 3 which is ink jet printer ink.